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ABSTRACT

A replication study was conducted with five underachieving fourth graders to determine the effects of teacher-written praise notes and associated parent praise as motivating agents for increased performance of assigned school tasks. When Ss completed 80% or more of their work they were given a praise note to take home to parents who were encouraged to provide additional positive reinforcement. Results indicated that all Ss improved their completion of assigned tasks, that their report card grades improved, and that parents were enthusiastic about the program. (DB)

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MODIFYING INDEPENDENT WORK HABITS OF ELEMENTARY CLASSROOM STUDENTS THROUGH PARENT-TEACHER INVOLVEMENT AND COOPERATION

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The 1975 Federal Education for All Handicapped Children Act, P.L. 94-142, was developed after several years of intensive litigation. This law provides for education of handicapped children in the "least restrictive environment".

> Section 612 (5) (B) of the act required states to establish procedures to insure that the maximum extent appropriate, handicapped children are educated with children who are not handicapped, and that removal of handicapped children from the regular education environment occurs only when the nature or severity of the handicap is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily. . . These proposed regulations require (1) each state educational agency to inform public educational agencies about the least restrictive alternative provision, to assist them in implementation, and to monitor their progress, and (2) set forth additional requirements designed to insure effective implementation of this provision for each handicapped child. (Federal Register, 1976).

Accordingly, the concept of mainstreaming is rapidly emerging as a means for providing appropriate quality education for special students (Birch, 1974; Jones, 1972; Nyquist, 1975).

> Mainstreaming refers to the temporal, instructional, and social integration of eligible exceptional children with normal peers based on an ongoing, individually determined educational planning and programming process, and requires clarification among administrative, instructional and supportive personnel. (Kauffman, Gottlieb, Agard, and Kukic, 1975).

Thus, mainstreaming often requires continued supportive relationships between regular classroom teachers and special educator resource and consulting personnel in order to meet the needs of special students (Christoplos, 1973; Mann, 1974; Reynolds & Davis, 1971).

Educational options for special students have formerly included segregated placement or no placement at all. A changing focus has led educators to expand options for the delivery of service alternatives. Mainstreaming, as one of these options, has resulted in regular educators, special educators and parents providing a team effort in order to meet the needs of handicapped students.

In the past, parental involvement was evidenced through the formation of advocacy groups to stimulate legislators toward pursuing favorable legislation to

form educational organizations and to secure favorable legislation for handicapped children (Cruickshank, 1967; Kroth, 1975). However, there is clearly a need to have parents more involved with their children's educational endeavors.

In some instances, educators have not attempted to develop close working relationships with parents. As a result, parental support and interest have diminished accordingly. A shift in attitudes, stemming from a variety of sources has resulted in one such change referred to as the "taxpayers' revolt" which has been accompanied by demands for greater quality and accountability in education (Kelly, 1975).

Special Education is one area in which parental interest has continued to successfully advocate for the provision of services and facilities for handicapped children.

Public Law 94-142 provides an opportunity for parents to actively participate in the development of their children's individual educational plan within the least restrictive educational environment: (Federal Register, 1976). Parents will be able to share information and ideas with team personnel who have a responsibility to provide the best possible individualized program (Marsh, 1977; Bryant, 1977; Cantrell & Cantrell, 1976 MacDonald, 1971).

The right of a parent to participate in his child's educational planning is a responsibility that has often been neglected. Contemporary research (Goodman & Clements, 1975; Flint & Deloach, 1975; Kroth, 1975; Tharp & Wetzel, 1969) indicates that parental interest or disinterest is likely to have a definite effect on a child's attitude and learning pattern. Basic values, perceptions and attitudes of oneself and others are primarily developed in the home. What is taught in the classroom becomes meaningful and relevant when parents are involved and interested in their children's education (Kirk, 1961; Kvaraceus & Hayes, 1969). Thus, it seems critical to foster positive parental involvement within the school.

Several options are available to insure the inclusion of parental involvement: parent group meetings; individual conferencing; volunteer programs; parent counseling groups; effectiveness training; filial therapy; and, behavior modification programs. These approaches serve as alternatives to help parents become effective and positive with their own children by attempting to develop closer parent-child relationships. In behavioral terminology, parents learn to become more effective reinforcing agents (Alexander & Clements, 1975; Becher, 1971; Bromber, 1968; Feldman, Ryalick & Rosedale, 1975; Patterson, 1968).

The use of behavior modification in the home has gained in prominence as an effective approach to modifying both academic and behavioral performance (Hacket, 1975; Masden, Becker & Thomas, 1968; Nelson, 1974; Patterson & Guillon, 1968).

A study by Imber, Imber and Rothstein (1977) was designed to utilize a relatively simple form of behavior management in both home and school in order to increase the accuracy of independent seatwork with elementary school children. In their study, teacher-administered praise notes were used to reinforce behavior of children exhibiting learning and behavioral difficulties. During intervention phases, each child received a praise note when 80% or more of his independent work was accurately completed. A multiple baseline procedure was established to allow for a controlled comparison of the effects of teacher and parent interventions. One purpose of the present investigation was to replicate the Imber study (1977) with fourth grade students using a multiple baseline procedure. A second purpose of the study was to apply the procedures through a resource room administrative arrangement. A third purpose of this study was to more closely examine parent-teacher communication resulting from the praise-note intervention procedure.

METHOD

A southern New England laboratory training school for teacher education was selected for this study. The school population consisted of a heterogeneous grouping of students, twenty percent of whom are children of college faculty, twenty percent are black, and sixty percent are general admission students. The schools's activity-based curriculum emphasies cross grouping, cross grading, creative expression and individualization. The subjects chosen were five fourth grade students, three white and two black, who were identified by their teacher as sporadically completing daily independent reading assignments. Parental factors were not considered in the selection of students. Previous intellectual testing indicated a range of abilities from below to above average. An assessment of each child's independent reading seatwork confirmed the classroom teacher's perception of the appropriateness of assigned work.

The school's learning disabilities resource person coordinated the study with the classroom teacher and provided support for both the teacher and parents when interventions occurred.

SUBJECTS

Five fourth grade students were selected for this study. Their teacher had identified them as having behavioral and learning problems and having difficulty remaining on task to complete independent assignments. The appropriateness of their work had been determined previous to the onset of the study.

S 1, a white male, was described by his teacher as inconsistently completing his assignments although he was bright and considered capable of better achievement. He was highly distractible, exhibited immature behavior and attempted to influence his peers accordingly. His observable leadership qualities often led his peers to exhibit similar inappropriate behavior such as falling from a chair, verbalizing inappropriately, pushing classmates and otherwise disrupting the teacher's lessons. S 1 came from a high socio-economic background. His mother frequently spent time engaged in on-site school-related activities.

S 2, a white male of average ability, worked very slowly, "daydreamed" and spent an excessive amount of class time on independent seatwork. Because it was seldom completed, the work was usually sent home at the end of each day and with parental assistance, it was completed and returned the following morning. His teacher's comments about his work resulted no significant change in his off-task behavior. His mother was an active volunteer in school-related projects. Although she expressed a concern for her son's achievement, her expectations for his performance were lower than those expressed by the classroom teacher.

S 3, a black male, demonstrated limited ability as evidenced by inefficient immediate and delayed recall and difficulty following directions. For

long periods of time he would gaze toward the window apparently unaware of his environment. His program had been adjusted to the extent that he was required to complete only fifty percent of assignments given to other class members. His work was disorganized, inaccurate and inconsistent. Occasionally, he could complete all of his assignments if coerced by his teacher but more frequently, he exhibited off-task behavior. The subject's family came from a low socio-economic background. This subject's parents rarely visited the school or contacted the teacher even during parent conference week.

S 4, a black male of average ability, performed erratically, seldom completing an assignment. Conceptualization skills reflected deficits in many areas, especially in mathematics and reading comprehension. More ability was demonstrated when his teacher used concrete materials. His papers were neat and relatively well organized but incomplete. Performance was largely a function of the nature of the assigned task.

S 5, a white female, was scheduled three times a week by the learning disabilities resource person. The subject exhibited difficulty in maintaining appropriate academic performance. She needed constant reassurance; her teacher provided considerable monitoring and feedback. This subject was highly distractible, immature and manipulative. Resource support initiated within her primary educational setting emphasized language arts and mathematical remediation. Even with resource support, S 5 was often distractible. When working with the resource teacher, this subject would frequently attempt to avoid her academic work by initiating conversation about topics unrelated to the task at hand. This subject came from an affluent family. Her mother rarely visited or contacted the school or teacher.

Treatment Conditions

During the course of a school day, each child was expected to complete a variety of independent reading seatwork assignments. These tasks were subdivided by the teacher into appropriate countable items. Included were matching and copying exercises, dittos, workbook pages, written composition and learning center activities.

Independent assignments were computed into a percentage of accurately completed items. All of the described seatwork was corrected, reviewed with the student and returned to him before the end of the school day.

Three phases of the study included a baseline period and two intervention periods. Baselines of varying lengths were established to determine the respective number of assignments and percent completed by each child. Intervention 1 required a private conference between the child and teacher to praise the student for behavior that was already appropriate and to explain to the student that on days for which 80% or more of his independent reading seatwork was correctly completed, the student could expect to receive a praise note from the teacher.

Parent involvement occurred ten days after teacher intervention. At the onset of Intervention 2, the subject's parents were contacted by phone if possible, and were also sent a handwritten message from the teacher. This letter explained to the parent the specific praise note procedure as follows:

1. If the child brings home a praise note from his teacher, parental praise should be immediate, lavish and sincere.
2. Praise should be provided again in front of other family members or neighbors.
3. The praise note should be hung in a conveniently conspicuous place in the home.

4. Each morning the note system should be mentioned to the child reminding him of his former successes while expressing hope that he will be again successful.

The parent was also instructed to avoid any display of negative behavior when the child failed to bring home a note. Rather, the child was to be reminded that each day held a new beginning with the possibility of probable success. No punishment was to be threatened or administered.

Table 1 indicates the variation of baselines and intervention periods for the five selected subjects. This procedure served to control for extraneous environmental factors.

The resource coordinator phoned each parent at the onset of parental intervention, in order to lend support to the plan and to record the parents' comments. Several times during parent intervention, personal contact resulted when parents visited the school for educationally related reasons.

RESULTS

Independent Seat Work

For the purpose of this study, each assignment of independent seat work was subdivided into countable items. The percentage of corrected completed assignments were tabulated and converted to percentage on a data basis.

Subject 1

During the initial baseline period of ten days, S 1 correctly completed 81% of independent reading assignments. Percentages ranged from a low of 50% to a high of 100%. The mean percentage of completed items increased to 96% when intervention 1 was initiated with an 80% to 100% range. Ten notes in ten days were earned during this time frame. Continued improvement was noted

during intervention 2 which was charted for a twenty day period. S 1 consistently earned praise notes for the remainder of intervention 2 totaling 20 notes with a mean of 95.25% and scores ranging from 85% to 100%.

Subject 2

During fifteen days of baseline, S 2 correctly completed 46.33% of independent reading seatwork. Daily scores ranged from 10% to 100%. Intervention 1 showed a mean increase of 68.8% with a range of scores from 50% to 90%. Five notes were earned during the ten day intervention 1 period, increasing to 13 notes during intervention 2. A prolonged absence of one and one-half weeks due to illness may have affected S 2's performance following his return. The mean score for intervention 2 has 88.0% with a range of 50% to 100%.

Subject 3

During the twenty day baseline period, S 3 earned a mean of 67.5% with scores ranging from 20% to 100%. Teacher intervention yielded a mean score of 75% with scores ranging from 50% to 100%. Only two notes were earned during this period. During intervention 2 eight notes were earned within the ten day period establishing a mean of 80.5% with a score range of 50% to 100%.

Subject 4

During a ten day baseline period, S 4 correctly completed a mean of 61.8% with scores ranging from 33% to 100%. Teacher intervention yielded a mean score of 82.3% with a 30% to 100% range while parent intervention scores ranged from 70% to 100% with a 93% mean. During intervention 1, 8 notes were earned. During parent intervention 19 notes were earned.

Subject 5

During the fifteen day baseline period, S 5 completed 56% of assigned seatwork. Her scores ranged from 0% to 100%. Intervention 1 with parental support

showed minimal gain to 69.7% with scores ranging from 17% to 100%. However, a gain of 90.6% was noted as scores ranged from 80% to 100%. While S 5 only earned 3 notes during intervention 1 (10 days), she earned 15 notes during intervention 2 (15 days).

Table 1 summarizes the percentage of correctly completed items and earned notes for the five subjects during each of the treatment phases.

Multiple Comparisons

Figures 1, 2, 3, 4 and 5 provide graphic comparisons of the data for each of the five subjects during the three treatment phases. Each of the subjects were erratic in their daily performance and achieved below an expected level. It is evident that each of the subjects showed significant improvement during each intervention. The importance of using a multiple baseline is to allow for a controlled comparison of the effects of teacher and parent interventions. This procedure allows for the result of a small number of subjects to be carefully examined by structuring the points at which the different intervention procedures are initiated. While Subjects 1 and 4 were beginning to receive parental support in addition to teacher intervention, Subjects 2 and 5 were receiving only teacher praise notes without parental support. S 3 was still in a baseline condition. It can be seen that while S 1 and S 4 showed significant improvement during the teacher intervention phase, S 2, 3 and 5 were exhibiting a lower level of performance during their baseline conditions. Mean percentages of intervention 1 and intervention 2 showed S 1 (96% - 95.25%) and S 4 (82.3% - 93.0%) in sharp contrast to mean baseline percentages of S 2 (46.33%), S 3 (67.5%) and S 5 (56.0%).

Mean Percentage of Correctly Completed Items of Independent Reading Seatwork and Number of Praise Notes Earned During Conditions of Baseline, Intervention$_1$ and Intervention$_2$.

Subject	Baseline		Intervention$_1$			Intervention$_2$		
	No. of Days	Mean %	No. of Days	Mean %	# notes	No. of Days	Mean %	# notes
S_1	10	81.5	10	96.0	10	20	95.25	20
S_2	15	46.33	10	68.8	5	15	88.0	13
S_3	20	67.5	10	75.0	3	10	80.5	8
S_4	10	61.8	10	82.3	8	20	93.0	19
S_5	15	56.0	10	69.7	3	15	90.6	15

Report Card Data

Each of the five subjects demonstrated noticeable gains in their report card grades from the first to the third quarter, (see Appendix A). This study was initiated just prior to the second marking period.

S 1 showed significant gains in several areas of academic achievement, effort and behavior. His reading mark improved from "C" to "B" to "A" during the first three quarters. Concurrently, his reading effort grade improved from "D" to "B" to "A". Written language, oral language, spelling, social studies, math and science showed gains ranging from C to A with considerable gain in effort. Special subject teachers noted improvement in attitude and behavior espeically in art and home economics. Handwriting improved from satisfactory to outstanding.

S 2 showed a marked gain in reading of "D+" to "C+" from September to April. Spelling improved from "C" to "B". More significant gains were indicated from the second marking quarter to the third quarter in spelling, language arts, social studies and science. Significant gains occured in emotional control, cooperation, reliability, and initiative.

S 3 demonstrated the following achievement gains: reading, "D" to "C"; mathematics, "D" to "C"; spelling, "D" to "B"; science and social studies, "D" to "B"; language arts, "D" to "C".

In the areas of industrial arts achievement, emotional control, cooperation, reliability and initiative five U's changed to S's during the course of the study.

S 4 showed minimal gain in reading from "C" to "C+", a gain in spelling from "B" to "A", improvement in art from U to S and several gains in emotional control, cooperation, reliability, appearance, manner and initiative, from S to S+.

S.5 maintained the same achievement mark in reading, "C", but showed significant progress in mathematics "D+" to "C-", spelling "D+" to "C", written language "C" to "C+", home economics, B/S to A/O and physical education C/S to B+/S.

In measuring report card growth, the classroom teacher presently feels that each of the five subjects are more closely approximating a fourth grade level of achievement. Prior to the study, these subjects were performing on a third grade instructional level with intensive support. The teacher has now indicated that these five subjects are currently working much more independently. Although reading marks remained relatively stable with Subjects 3, 4 and 5, significant improvement was noted in language arts which was included among the countable items designed for independent seatwork.

In summary, it is clear that all five subjects showed considerable gains on their report cards. It is not surprising that subjects showed noteable gains in the area of reading since the data graphically documents quantitative improvement. The fact that the subjects also improved in other areas may be due to a "halo" effect. It should be noted, however, that the subjects' non-academic teachers were unaware that this study was in progress. Thus, it is likely that gains made in art, home economics, and industrial arts, physical education, music and handwriting, occured more likely as a result of the subjects change in attitude and effort rather than because of teachers increased expectations and more appropriate performance.

Parent-Initiated School Contact Data

According to Table 2, it can be seen that no communication was initiated or intended during baseline and intervention 1.

Prior to intervention 2, the classroom teacher attempted to call each parent on two separate occasions, however, no contact was made.

During intervetion 2 most of the parent contact was initiated by parents of Subject 1 and 2.

Parents of Subjects 3 and 4 wrote reinforcing notes to the teacher.

Parents of Subjects 1 and 2 visited the school principal.

The parent of S 5 initiated no contact, however, when contacted by the resource person she expressed appreciation and gratitude that her child had been selected for the study and so that much progress had been made.

In short, before parents were informed of their children's progress and asked to support the program, no parent initiated behavior occured. After the onset of intervention 2, twenty parent-initiated contacts were observed.

Parental Contact (TABLE 1) Intervention 1

Teacher-Parent or Parent-Teacher Initiated Contact During	Teacher's Phone Call to Parent	Explanatory Note Teacher to Parent	Follow-up Phone Call Resource to Parent	Phone Call From Teacher to Parent	Phone Call From Parent to Teacher	Note From Parent to Teacher	Actual Visits to Parents by Teacher	Actual Visits to Parents to Resource	Actual Visits to Resource to Parents	Total Parent Contact Across Contact
S1										
Baseline 0	0/2	1	2	0	0	1	0	0	0	4
Intervention 1 0										
S2										
Baseline 0	0/2	1	1	0	0	0	0	0	0	2
Intervention 1 0										
S3										
Baseline 0	0/2	1	1	0	0	1	0	0	0	3
Intervention 1 0										
S4										
Baseline 0	0/2	1	2	0	1	1	0	0	0	5
Intervention 1 0										
S5										
Baseline 0	0/2	1	2	0	0	0	0	0	0	3
Intervention 1 0										

DISCUSSION

The present study was designed to replicate earlier findings of Imber, Imber and Rothstein (1977) which demonstrated positive effects of teacher-written praise notes as motivating agents for increased performance. The study also demonstrated that when parents had the opportunity to support their children's efforts, the children were more likely to show further significant improvement.

The results of the present study clearly support the idea that a marked, positive change in student performance can occur when a teacher and parent collaborate positively and consistently to improve a child's educational experience. It also supports the idea that a minimal amount of actual teacher contact was necessary to accomplish the objectives of this study. No contact had been prescribed or initiated by the teacher or resource teacher during baseline conditions or intervention 1. With the onset of intervention 2, the teacher attempted to reach each subject's parents by phone during school hours. No contact was possible. The only teacher-parent communication regarding the procedure was a hand-written note explaining the praise note system. When the praise note system had been in effect for one week, the resource person phoned each parent to gain information from the parent and to support the classroom teacher.

It should be noted that at no point was parental interest, involvement, or cooperation taken into consideration before the selection of the five subjects for this study.

Parents of Subjects 4 and 5 expressed sincere appreciation to the resource person for making their children's school experience so meaningful. They expressed a fillings of pride and gratitude.

Some limitations of this study should be considered. The appropriateness of the assigned seatwork must be determined before the child is expected to achieve to his full potential. Had this not been take into consideration, S 3 might have performed far below his prescribed goal. Another limitation to be mentioned is the teacher-child trust mutual cooperativeness factor. A high level of trust between teacher and child promotes consistency regarding praise-note contract. Still another limitation is the variable of prolonged student absence as in the case of S 2. When his achievement score dropped during intervention 2, the resource teacher conferred with the classroom teacher who felt that two factors might have influenced this subject's performance on the day he returned to school: (1) his weakened physical condition following the illness and/or (2) the inappropriateness of the assigned task that day. During a telephone conversation between the resource teacher and mother, the mother stated that although the child was acutely ill with high fever resulting from a respiratory infection, he expressed concern that he would be "losing ground" and asked if the mother would call the teacher for homework. When his achievement score dropped on the day of his return to school, he told his mother he knew he hadn't done enough work on that day, but that he was too "exhausted", adding, "It might even take me a week to catch up".

Another limitating factor which must be considered relates to the child's perception of the reinforcer. If the subjects in this study did not perceive teacher-praise notes as positively reinforcing, the obtained intervention 1 results surely would have been less favorable. Simultaneously, if positive parental attention was received by the subjects as non-reinforcing, the obtained intervention 2 data would have also been less favorable.

Parents from varied socio-economic, ethnic and educational backgrounds became involved only as a result of the classroom teacher's interest in finding suitable subjects.

Although each parent indicated that his or her child displayed newfound enthusiasm, a willingness to achieve, and a more positive attitude toward school and home, one of the most noticeable, tangible gains with each of the subjects was a distinct elevation 'report card marks from one academic quarter to the next. Several gains in attitude, effort and behavior were also observed. The parents have stated that the effects of this study have generalized to other areas such as home responsibilities and extra curricular activities. Where parental nagging or coercion had been an accepted strategy to insure the child's performance, parents have stated that a "strategy" was no longer necessary. The classroom teacher made similar comments by noting that her subjects were currently approaching assignments in a more agreeable, willing manner.

Prior to the study, the parent of S 1 had expressed dissatisfaction regarding her son's lack of school achievement. Following intervention 2, S 1 mother expressed to the resource teacher her appreciation regarding her son's academic improvement.

On two occasions, the mother of S 2 visited the school's principal to relate to him "how wonderful this experience has been for all of us". Following a twenty minute visit with him, she expressed a desire to disseminate information regarding the study to other parents and teacher in the hope that other children might also be positively affected.

Parents of Subject 3 were unable to be contacted by phone at the end of the study. The only contact from this parent was handwritten note to her son's teacher. In this note she expressed sincere appreciation for the teacher's interest and time spent helping S 3 to achieve.

There are several implications of this study. One implication is that the procedure used in this study may prove useful to special education administrators and teachers as a means of promoting positive and efficient communication among teachers and parents, who are concerned with supporting special needs children in the least restrictive environment.

Another implication is that resource teachers may be able to utilize the procedures described in this paper to help classroom teachers work with underachieving children who are not part of the resource teacher's case load.

A third implication is that a behavioral designed to effect a change in student performance may have far reaching positive, affective and behavioral effects.

Future areas of research might include: the application of procedures utilized in this study to an inner-city schools setting; the modification of these procedures to include a condition with teacher-parent intervention followed by teacher intervention alone, an analysis of affective teacher, parent, and child variables, which relate to interpersonal interventions.

The authors hope that this investigation results in further application and experimentation of the aforementioned procedures to many other classroom situations.

The subsequent generalizations and mofidications of these procedures should result in the amelioration of many learning and behavioral problems of special needs children.

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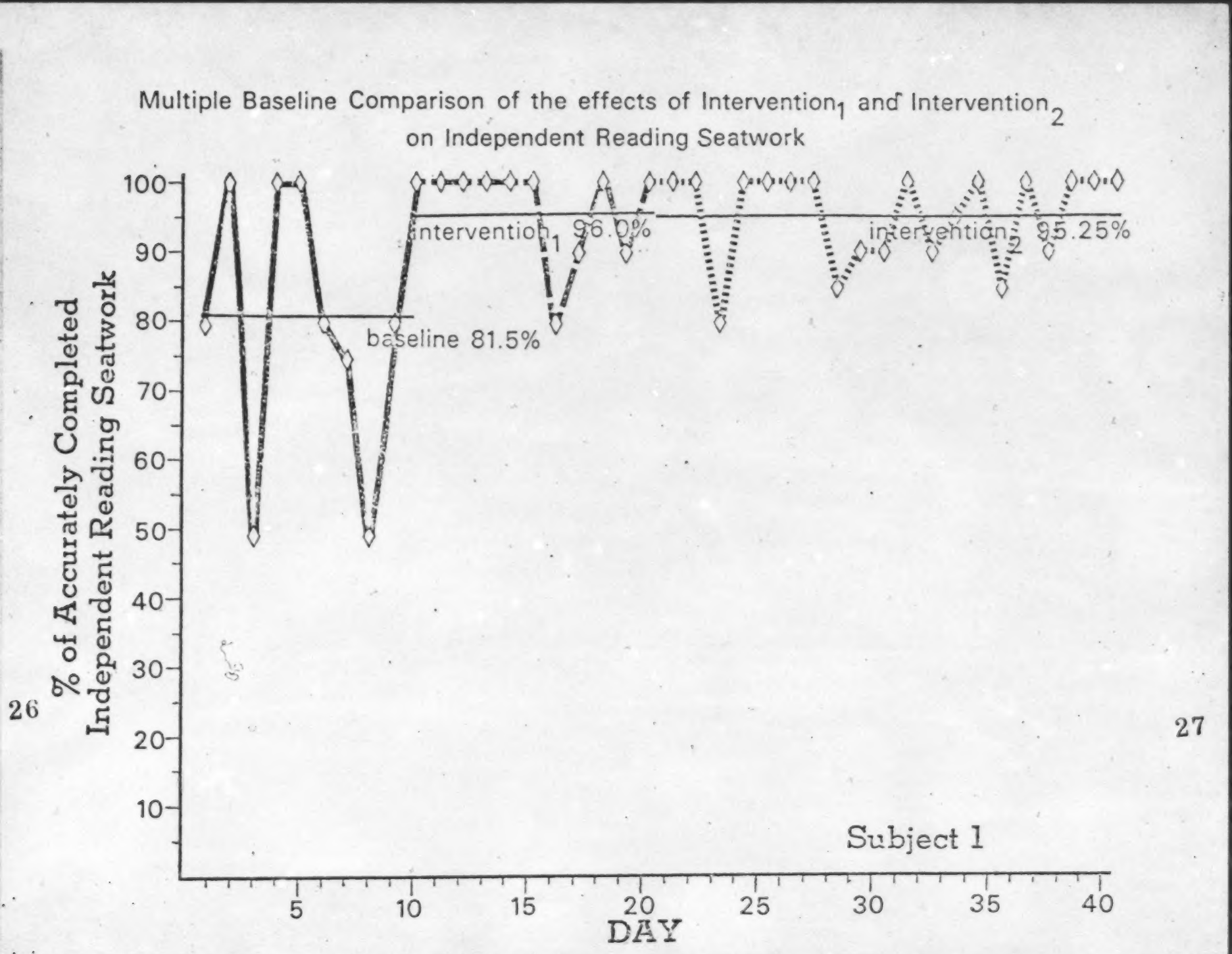
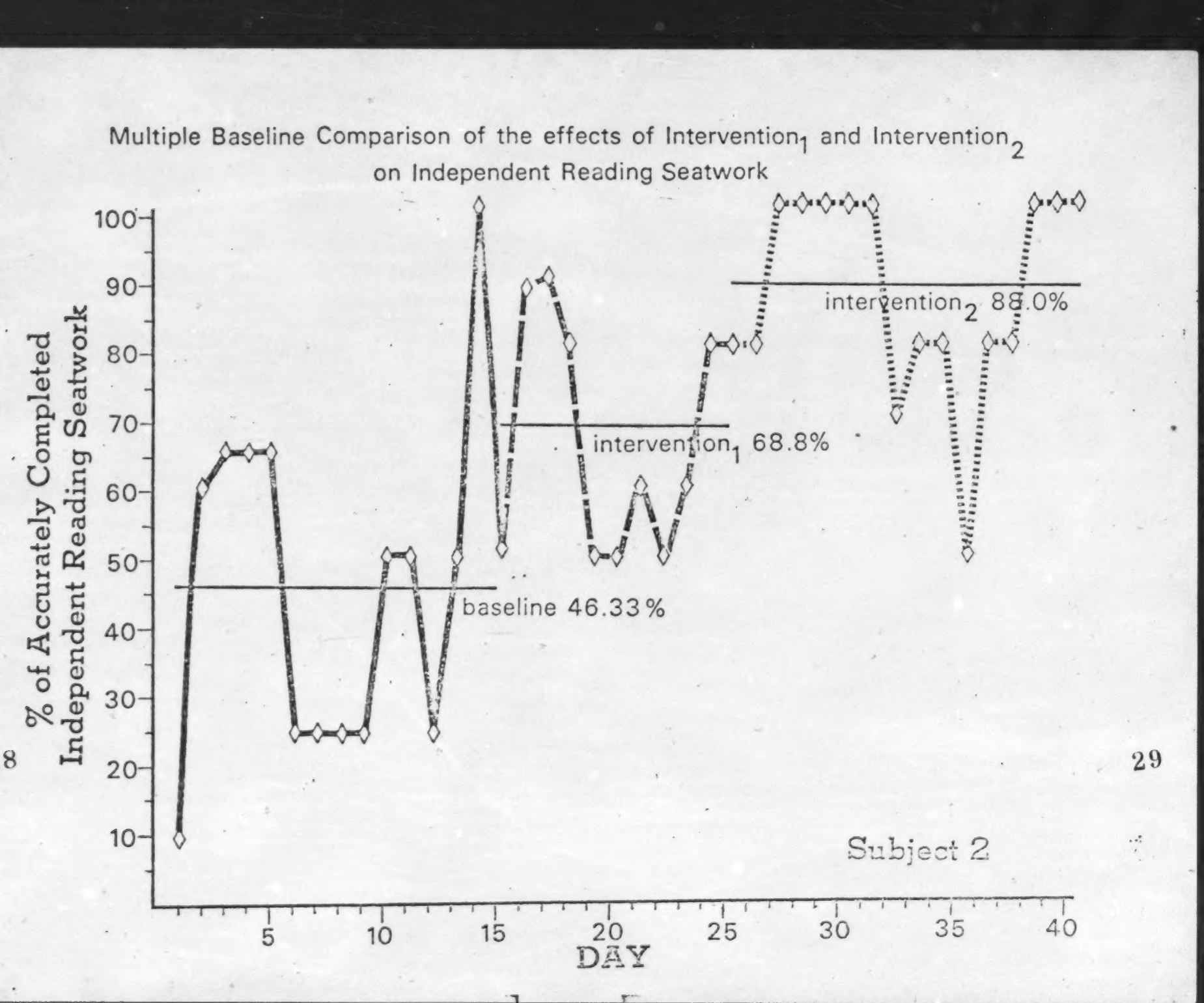
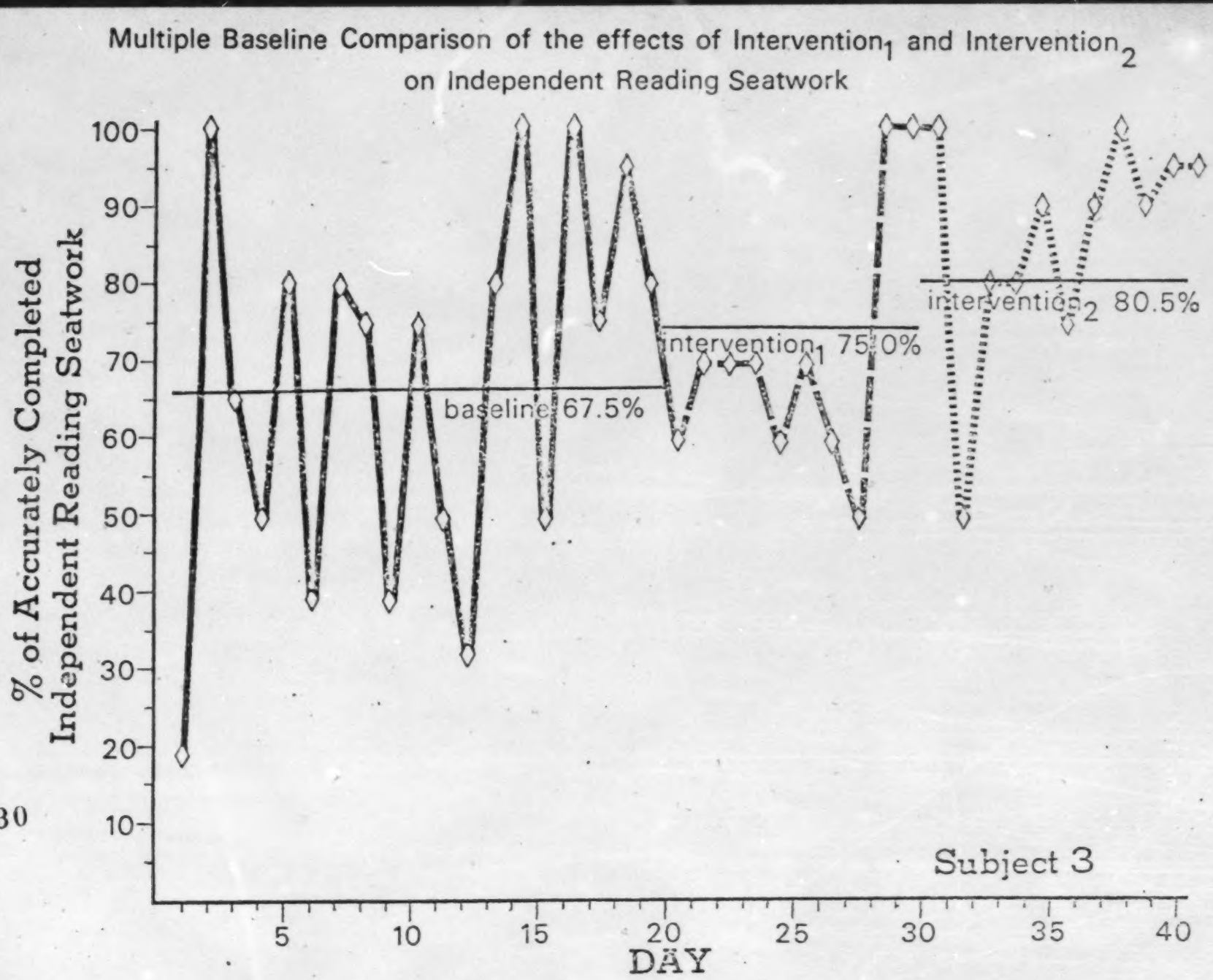
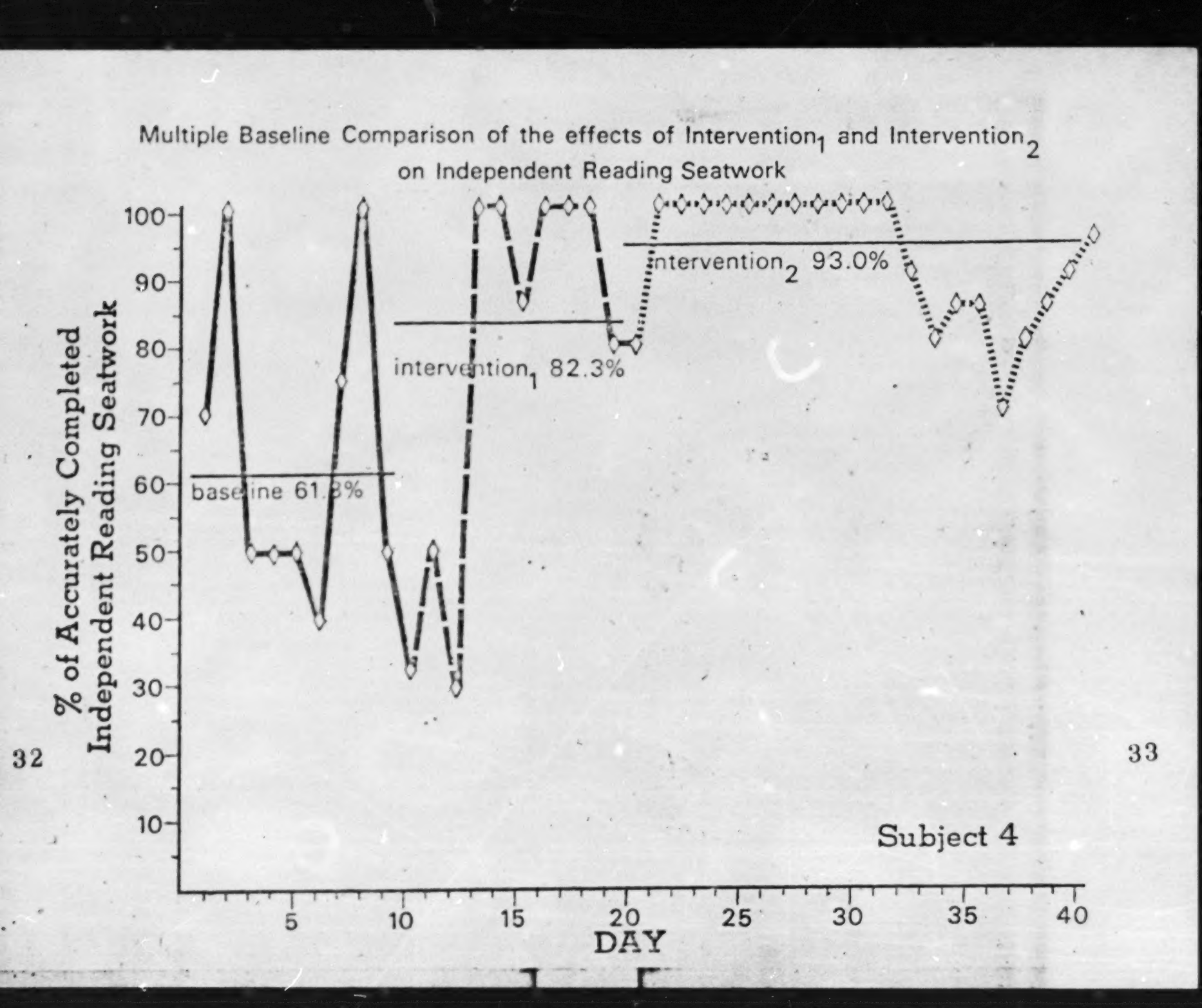
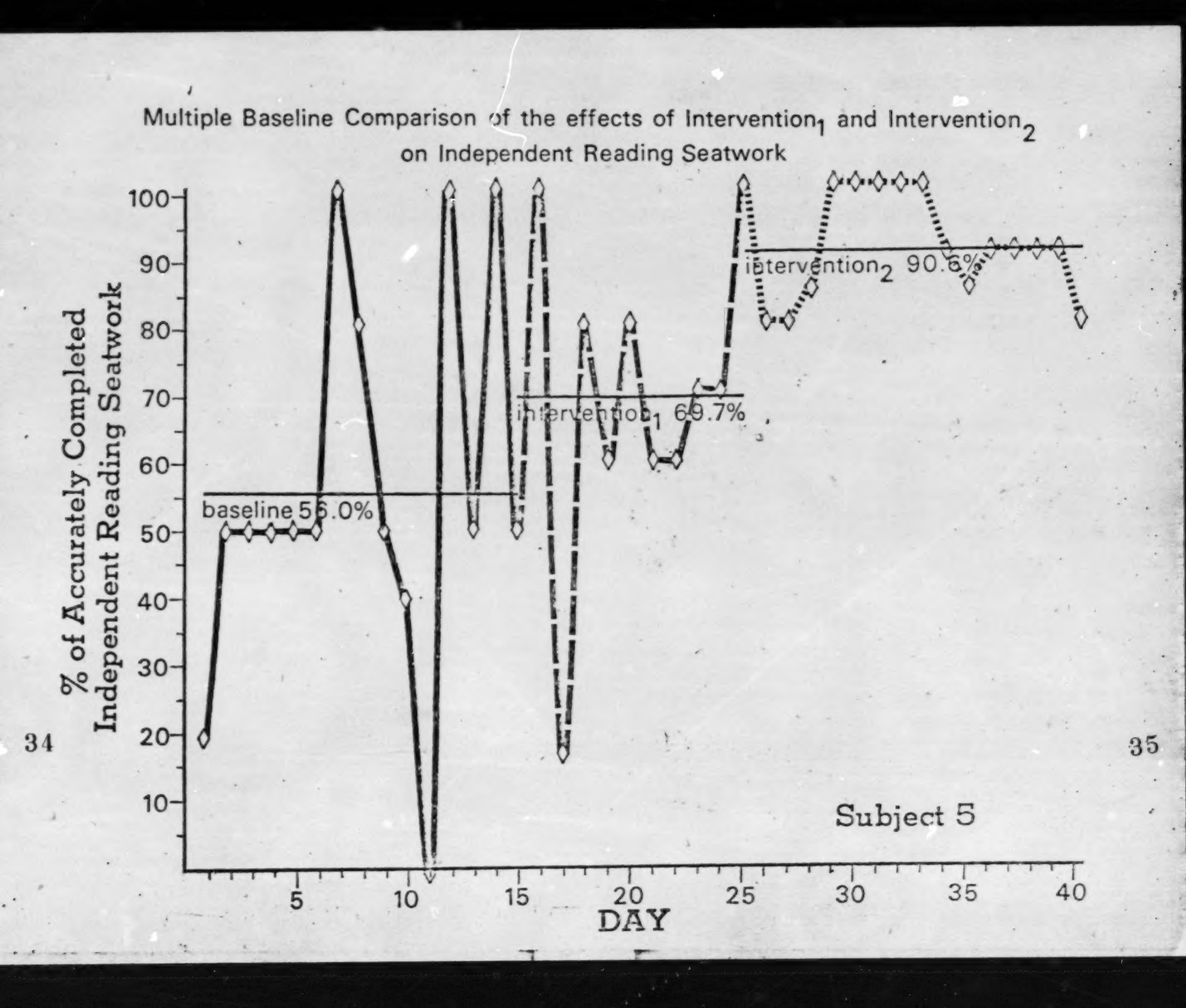

Multiple Baseline Comparison of the effects of Intervention1 and Intervention2
on Independent Reading Seatwork
% of Accurately Completed
Independent Reading Seatwork
100
90
80
70
60
50
40
30
20
10
intervention1 96.0%
intervention2 95.25%
baseline 81.5%
Subject 1
5
10
15
20
25
30
35
40
DAY


Multiple Baseline Comparison of the effects of Intervention1 and Intervention2
on Independent Reading Seatwork
% of Accurately Completed
Independent Reading Seatwork
100
90
80
70
60
50
40
30
20
10
baseline 46.33%
intervention1 68.8%
intervention2 88.0%
Subject 2
5
10
15
20
25
30
35
40
DAY


Multiple Baseline Comparison of the effects of Intervention1 and Intervention2
on Independent Reading Seatwork
% of Accurately Completed
Independent Reading Seatwork
100
90
80
70
60
50
40
30
20
10
baseline 67.5%
intervention1 75.0%
intervention2 80.5%
Subject 3
5
10
15
20
25
30
35
40
DAY


Multiple Baseline Comparison of the effects of Intervention1 and Intervention2
on Independent Reading Seatwork
% of Accurately Completed
Independent Reading Seatwork
100
90
80
70
60
50
40
30
20
10
baseline 61.8%
intervention1 82.3%
intervention2 93.0%
Subject 4
5
10
15
20
25
30
35
40
DAY


Multiple Baseline Comparison of the effects of Intervention1 and Intervention2
on Independent Reading Seatwork
% of Accurately Completed
Independent Reading Seatwork
100
90
80
70
60
50
40
30
20
10
baseline 56.0%
intervention1 69.7%
intervention2 90.6%
Subject 5
5
10
15
20
25
30
35
40
DAY

APPENDIX A

Subjects

LEGEND:

A	Excellent	C	Average	O	Outstanding
B	Good	D	Poor	S	Satisfactory
C+	Average	F	Failing	U	Unsatisfactory

SUBJECT TITLE	First Quarter			Second Quarter			Third Quarter		
	Level	Effort	Ach.	Level	Effort	Ach.	Level	Effort	Ach.
Reading	10	D	C	10	B	B	10	A	A
Mathematics		S-	C		S	B		O	A
Language Arts									
Spelling		O	A		O	A		O	A+
Written Lang.		S	B		S	B		O	A
Oral Lang.		S	B		S	B		O	A
Social Studies		S	B		S	B		O	A
Science		S	B		S	B		O	A
French									
Art		D	U		C	S		C	S-
Home Ec./Ind. Arts		B	S		A	S		A	S
Physical Education		A	S		A	S		A	S
Music		B	S		B	S		B	S
Handwriting		S	S		S+	S+		O	O

SOCIAL DEVELOPMENT

	Effort	Effort	Effort
Emotional Control	S-	S-	S
Cooperation	S-	S-	S
Reliability	S-	S-	S
Appearance	S	S	S
Manner	S-	S	S
Initiative	S	S	S

Subjects

LEGEND:

A	Excellent	C	Average	O	Outstanding
B	Good	D	Poor	S	Satisfactory
C+	Average	F	Failing	U	Unsatisfactory

SUBJECT TITLE	First Quarter			Second Quarter			Third Quarter		
	Level	Effort	Ach.	Level	Effort	Ach.	Level	Effort	Ach.
Reading	10	D+	D+	10	C	C	11	C+	C+
Mathematics		S	C		S	C-		S	C-
Language Arts									
Spelling		S	C		S	B-		S	B
Written Lang.		S	B		S	B-		S	B
Oral Lang.		S	B		S-	B-		S	B
Social Studies		S	B		S-	B-		S	B
Science		S	B		S-	B-		S	B
French									

	First Quarter		Second Quarter		Third Quarter	
	Effort	Ach.	Effort	Ach.	Effort	Ach.
Art	B	S	A	S	A	S
Home Ec./Ind. Arts	B	S	A	S	B	S
Physical Education	B	S	B	S	A	S
Music	B	S	B	S	B	S
Handwriting	S	S	S	S	S	S

SOCIAL DEVELOPMENT

	First Quarter	Second Quarter	Third Quarter
	Effort	Effort	Effort
Emotional Control	S-	S-	S
Cooperation	S-	S-	S
Reliability	S-	S-	S
Appearance	S-	S	S
Manner	S	S	S
Initiative	S-	S-	S

Subject 3

LEGEND:

A	Excellent	C	Average	O	Outstanding
B	Good	D	Poor	S	Satisfactory
C+	Average	F	Failing	U	Unsatisfactor

SUBJECT TITLE	First Quarter			Second Quarter			Third Quarter		
	Level	Effort	Ach.	Level	Effort	Ach.	Level	Effort	Ach.
Reading	9	D	D	9	D	D+	9	C	C
Mathematics		S	D+		S-	D+		S	C-
Language Arts		S-	D		S	B		S	B
Spelling		S-	D		S	D+		S	C
Written Lang.		S-	D		S	D+		S	C
Oral Lang.		S-	D		S	D+		S	C
Social Studies		S-	D		S	D+		S	C
Science									
~~French~~									

	First Quarter		Second Quarter		Third Quarter	
	Effort	Ach.	Effort	Ach.	Effort	Ach.
Art	B	S	B	S	B	S
Home Ec./Ind. Arts	C	U	B	S	B	S
Physical Education	B	S	B	S	B	S
Music	C	S	C	S	C	S+
Handwriting	S-	S-	S-	S-	S-	S-

SOCIAL DEVELOPMENT

	First Quarter	Second Quarter	Third Quarter
	Effort	Effort	Effort
Emotional Control	U	S-	S
Cooperation	U	S-	S
Reliability	U	S-	S-
Appearance	S	S	S
Manner	S-	S	S
Initiative	U	S-	S

Subject 4

LEGEND:

A	Excellent	C	Average	O	Outstanding
B	Good	D	Poor	S	Satisfactory
C+	Average	F	Failing	U	Unsatisfactory

JECT TITLE	First Quarter Level	Effort	Ach.	Second Quarter Level	Effort	Ach.	Third Quarter Level	Effort	Ach.
ding	10	D	C	11	C+	C+	11	C+	C+
hematics		O	A		S-	D+		S	B
guage Arts									
Spelling		S	B		O	A		O	A
Written Lang.		S	B		S	B		S	B
Oral Lang.		S	B		S	B		S	B
ial Studies		S	B		S	B		S	B
ence		S	B		S	B		S	B
nch									

	Effort	Ach.	Effort	Ach.	Effort	Ach.
	D	U	C	S	C	S
e Ec./Ind. Arts	B	S	A	S	C	S
sical Education	A	S	A	S	A	S
ic	[illegible]	S	B	S	B	S
duriting	U	S	S	S	S	S

SOCIAL DEVELOPMENT

	Effort	Effort	Effort
tional Control	S	S+	S+
peration	S	S+	S+
nsibility	S	S+	S+
erance	S	S+	S+
ner	S	S+	S+
tistive	S	S	S

Subject

LEGEND:

A	Excellent	C	Average	O	Outstanding
B	Good	D	Poor	S	Satisfactory
C+	Average	F	Failing	U	Unsatisfactory

SUBJECT TITLE	First Quarter			Second Quarter			Third Quarter		
	Level	Effort	Ach.	Level	Effort	Ach.	Level	Effort	Ach.
Reading	8	C	C	8	C	C	8	C	C
Mathematics		S-	D+		S	C+		S	C-
Language Arts									
Spelling		S-	D+		S	C+		S	C
Written Lang.		S	C		S	C		S	C+
Oral Lang.		S	B		S	B		S	B
Social Studies		S	B		S	B		S	B
Science		S	B		S	B		S	B
French									

	Effort	Ach.	Effort	Ach.	Effort	Ach.
Art	A	S	A	S	A	S
Home Ec./Ind. Arts	B	S	B	S	A	O
Physical Education	C	S	B	S	B+	S
Music	B	S		S	B	S
Handwriting	S	S		S	S	S

SOCIAL DEVELOPMENT

	Effort	Effort	Effort
Emotional Control	S	S	S
Cooperation	S	S	S
Reliability	S-	S-	S
Appearance	S	S	S
Manner	S	S	S
Initiative	S	S	S